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VENABLE LLP
P.O. BOX 34385
WASHINGTON, DC 20043-9998

EXAMINER	
NILANONT, YOUPAPORN	
ART UNIT	PAPER NUMBER
2446	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/539,277	HANSEN ET AL.	
	Examiner	Art Unit	
	YOUPAPORN NILANONT	2446	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 June 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☒ Claim(s) *1,2,10,12,13 and 15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of claims:

Claims 1-15 are pending in this Office Action.

Claims 1-3, 6, 8-13 are amended.

Claims 14-15 are new.

The objection to the specification is withdrawn based on applicant's amendment.

Response to Arguments

Applicant's arguments, see page 8-12, filed 6/25/2009, with respect to the rejection(s) of claim(s) 1-13 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art reference(s).

Applicant's invention as claimed:

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the term "computer readable medium" cited in claim 13 is not defined in the specification.

Claim Objections

Claims 1-2, 10, 12-13 and 15 are objected to because of the following informalities:

It is not clear whether "the world wide web presentation unit" on lines 15-18 of claim 1 and lines 2-3 of claim 2 is the same with "a web presentation unit" on lines 4-5 of claim 1. For purposes of examination, "the world wide web presentation unit" has been interpreted to be the "web presentation unit".

It is not clear whether "the world wide web presentation unit" on lines 16-19 of claim 12 and lines 17-20 of claim 13 is the same with "a web presentation unit" on lines 4-5 of claim 12 and lines 6-7 of claim 13, respectively. For purposes of examination, "the world wide web presentation unit" has been interpreted to be the same as "web presentation unit".

It is not clear whether "the world wide web presentation unit" on line 2 of claim 10 and lines 1-2 of claim 15 is the same with "a web presentation unit" on lines 4-5 of claim 1. For purposes of examination, "the world wide web presentation unit" has been interpreted to be the same as "web presentation unit".

Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 13 is rejected under 35 U.S.C. 101 because it is directed to non-statutory subject matter. Specifically, the specification does not provide definition for the claimed "computer readable medium" and therefore, the claimed terminology is not limited to tangible embodiments. Under broadest reasonable interpretation, computer readable medium is defined as including both tangible (e.g. removable storage drive, hard disk) and intangible (e.g. signals, carrier waves) embodiments. As such, the claim is not limited to statutory subject matter and therefore, non-statutory under 35 U.S.C. 101.

Claim Rejections - 35 USC § 103

Claims 1-8, 10, 12-13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over in view of Andersson et al. (WO 01/02953) Topp et al. ("Web Based Service for Embedded Devices") in view of Varadarajan et al. ("ComponentXchange: An E-Exchange for Software Components") and in view of Fielding et al. (RFC 2068: Hypertext Transfer Protocol -- HTTP/1.1").

Regarding claim 1, (currently amended) Andersson teaches a method to respond to a request for a function of a real-world object connected to a control system (Andersson, page 12 lines 3-5 "queried by a client"), which function is represented as an Aspect of an Aspect Object (page 11 lines 14-18, page 10 lines 22-24), the method comprising:

receiving a request (page 14 lines 3-5)

and said request comprises an identifier configured to identify the Aspect Object and the Aspect of the Aspect Object (page 12 lines 24-27, page 13 lines 8-11),

identifying in a software application the Aspect Object and the Aspect by use of information (page 13 lines 8-11 and 27-31, page 14 lines 4-7),

querying the identified Aspect Object from the software application for an interface to an Aspect System Object associated with the Aspect (page 14 lines 3-7),

receiving from the Aspect System Object to the software application a reference to an interface of the Aspect System Object (page 14 lines 9-11, page 13 lines 21-22), which implements the function of the identified Aspect (page 11 lines 28-30),

invoking functionality of the Aspect utilizing the reference (page 18 lines 22-24 "implements the function queried for"), and

Andersson fails to disclose:

that the received request is a web request that is received in a web server, which web request is sent by a web presentation unit, and

sending a response message to the world wide web presentation unit, and

wherein the world wide web presentation unit is updated with the result of the performed function of the real-world object.

Topp discloses:

receiving a web request, which is sent by a web presentation unit, in a web server (Topp, page 144 section 2.4 “embedded web server, which offers a HTML based user interface and allows the user to do...tasks using a standard

internet browser"), and said web request comprises a Uniform Resource Locator (Topp, figure 6 "http://..."), and

sending a response to the web presentation unit (Topp, figure 4, page 147 first paragraph of section 3.3 "text over the internet, mostly consisting of HTML-code", the HTML page response is sent back to the client which accesses the web service through standard internet browser), and

wherein the world wide web presentation unit is updated with the result of the performed function of the real-world object (Topp, figures 4, 6 and 7, bottom half of page 148).

It would have been obvious to the person having ordinary skill in the art, at the time the invention was made, to have combined the teachings of Topp and Andersson together in order to allow user to operate and maintain his field devices remotely through fast growing technology like the Internet technology (Topp, page 141 section 1 "user needs a way to operate...remotely", page 142 first paragraph of section 2.1 and section 2.2)

Andersson in view of Topp fails to explicitly disclose:

that the Uniform Resource Locator comprises the identifier used to identify the Aspect Object which represent real-world object in Topp and Andersson references.

Topp only states that its embedded Web server processes http request from the client and responds with html page according to what was requested (Topp, figure 6, section 3.3).

Varadarajan discloses:

sending http POST message from client's browser to server which parse POST payload for client's request and query for requested result (Varadarajan, page 7 lines 3-4 and section 4.2).

It would have been obvious to the person having ordinary skill in the art, at the time the invention was made, to have combined the teaching of Varadarajan with the teachings of Andersson in view of Topp in order to allow client to request specific data of the field device using http request (Topp, page 146 "Request/Response" and figure 4 4-a).

Andersson in view of Topp in view of Varadarajan does not explicitly disclose:

that the response message is adapted to contextual information which describe characteristics of the world wide web presentation unit, wherein the contextual information is provided by the software application.

Topp and Varadarajan only state that response is generated into html code before being sent to client's browser (Topp, figure 6 and section 3.3, Varadarajan, section 4.2 line 6 "before the output is sent to the client...converted to HTML").

Fielding discloses:

a field of the http request header specifying information regarding user agent originating the request and a field in the http response used to specify the presentation of response selected by the server (Fielding, page 133 sections 14.42 and 14.43).

It would have been obvious to the person having ordinary skill in the art, at the time the invention was made to have utilize the field in request header and the information it yields shown in Fielding in order to adapt the response message to a

specific browser type of the requester in order to avoid particular user agent limitations that come with specific browser type (Fielding, section 14.42).

Regarding claim 2, (currently amended) Andersson in view of Topp in view of Varadarajan in view of Fielding discloses the method according to claim 1, wherein the contextual information is comprised in the web request sent from the world wide web presentation unit. (Fielding, page 133 section 14.42 "request-header field", "user agent originating the request")

Regarding claim 3, (currently amended) Andersson in view of Topp in view of Varadarajan in view of Fielding discloses the method according to claim 2, wherein receiving a web request, further comprises passing the web request from the web server to the software application (Topp, figures 5 and 6).

Regarding claim 4, (previously amended) Andersson in view of Topp in view of Varadarajan in view of Fielding discloses the method according to claim 1, wherein the response message is adapted according to the contextual information (Fielding, page 133 sections 14.42 and 14.43) by an Aspect System Object (Topp, figure 6).

Regarding claim 5, (previously amended) Andersson in view of Topp in view of Varadarajan in view of Fielding discloses the method according to claim 4, wherein the response message is adapted as an HTTP response (Topp, figure 2).

Regarding claim 6, (currently amended) Andersson in view of Topp in view of Varadarajan in view of Fielding discloses the method according to claim 4, wherein the response message is adapted according to extensible markup language (Topp, figure 3, section 3.4 "SOAP...is a XML based specification for message based communication").

Regarding claim 7, (previously amended) Andersson in view of Topp in view of Varadarajan in view of Fielding discloses the method according to claim 1, wherein the Aspect Object during run-time inherits the Aspect from another Aspect Object through a hierarchical structure, wherein the Aspect Object during run-time inherits the association of the Aspect System Object (Andersson, figures 4 and 5, page 16 lines 3-10).

Regarding claim 8, (currently amended) Andersson in view of Topp in view of Varadarajan in view of Fielding discloses the method according to claim 1, wherein the web presentation unit is a standard web browser (Topp, page 144 section 2.4 "embedded web server, which offers a HTML based user interface and allows the user to do...tasks using a standard internet browser").

Regarding claim 10, (currently amended) Andersson in view of Topp in view of Varadarajan in view of Fielding discloses the method according to claim 1, wherein the contextual information of the world wide web presentation unit describes technical characteristics of the world wide web presentation unit. (Fielding, page 133 section 14.42 "request-header field", "user agent originating the request")

Regarding claim 11, (currently amended) Andersson in view of Topp in view of Varadarajan in view of Fielding discloses the method according to claim 1, wherein the identifying comprises evaluating in the software application which function of the Aspect System Object the software application should query for a reference based on the contextual information in addition to the identified Aspect Object, the Aspect of the Aspect Object (Varadarajan, page 7 lines 30-35, Andersson, page 12 lines 3-5, Topp, figures 2 and 3).

Regarding claim 12, (currently amended) Andersson in view of Topp in view of Varadarajan in view of Fielding discloses a control system comprising a web server (Topp, figure 6), an Aspect Object, an Aspect System Object and a software application (Andersson, Abstract, "Composite Object", "Aspect System Object", page 14 lines 28-29 "aspect system"), wherein the system executes a method which is the same as method of claim 1; therefore, the limitations regarding executed method are rejected by the same reasons as rejection for claim 1 above.

Regarding claim 13, (currently amended) Andersson in view of Topp in view of Varadarajan in view of Fielding discloses a computer program product, comprising: a computer readable medium; and computer program instructions recorded on the computer readable medium (Andersson, page 5 lines 8-10, page 22 lines 32-33)

which when run on a computer or a processor causes said computer or processor to carry out a method which is essentially the same as method of claim 1; therefore the limitations regarding the method being carried out are rejected by the same reasons as rejection for claim 1 above)

Regarding claim 15, (new) Andersson in view of Topp in view of Varadarajan in view of Fielding discloses the method according to claim 10, wherein technical characteristics of the world wide web presentation unit comprise type of web browser, available plug-ins or screen resolution (Fielding, page 133 section 14.42 "CERN-LineMode/2.15").

Claims 9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson et al. (WO 01/02953) Topp et al. ("Web Based Service for Embedded Devices") in view of Varadarajan et al. ("ComponentXchange: An E-Exchange for Software Components") and in view of Fielding et al. (RFC 2068: Hypertext Transfer Protocol -- HTTP/1.1") as applied to claim 8 above, and further in view of Bratthall et al. ("Integrating Hundred's of Products through One Architecture - The Industrial IT architecture").

Regarding claim 9, (currently amended) The method according to claim 8 but does not explicitly disclose that the web browser is installed on a wireless device.

Bratthall discloses field engineer using hand-held devices to retrieve real-time aspects related to a physical entity in the plant (Bratthall, section 2.4.5).

It would have been obvious to the person having ordinary skill in the art, at the time the invention was made, to have recognized and utilized hand-held devices using operating systems, which are known for utilization in smart phones, as taught in Bratthall in the system and method taught by Andersson in view of Topp in view of Varadarajan in view of Fielding in order to provide flexibility in location of user who would like to access data of field devices (Topp, sections 2.1 and first paragraph of section 2.2)

Regarding claim 14, (new) Andersson in view of Topp in view of Varadarajan in view of Fielding in view of Bratthall discloses the method according to claim 9, wherein the wireless device is a cell phone Personal Digital Assistant, a cell phone or a handheld computing device (Bratthall, section 2.4.5 "field engineer may want

information to his hand-held device", section 3.1.3 "client is a PDA worn by maintenance personnel with a wireless network connection").

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUPAPORN NILANONT whose telephone number is (571) 270-5655. The examiner can normally be reached on Monday through Thursday and alternate Friday at 8:30 AM - 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey C. Pwu can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Y. N./
Examiner, Art Unit 2446

/Jeffrey Pwu/
Supervisory Patent Examiner, Art Unit 2446